Abstract of **DE10029784**

Objects units (OE), CPUs, monitoring units (WE), intervention units (IE), and customer units (KE) are linked via a telecommunications network (TKN) in a location-, information and work-distributed manner to coordinate personnel operations. The object units process data e.g. electronically received image sequences, measurement values. The monitoring units interpret the data via the watchman. The CPUs control the flow of information, while the intervention units insert objects based on the processed data. The customer units in turn determine the effects of the inserted objects based on the instructions input via the object units.

The invention concerns a device for the permanent guard and/or observation and influence of objects, areas, processes etc., which consists of several building groups and by means of a telecommunications network spatially and informatively distributes works as well as reduced and to a multiplicity of coworkers distributes the necessary human work, these thereby to relieve can and thus the quality of the services improve, costs attractive for a larger circle of acquaintances lower and make can.

it is well-known to use for the safety device of objects, buildings, articles etc. against unwanted events e.g. break-downs, fire, weather dangers etc. beside mechanical protective agents devices for the determination and documenting of such unwanted events. In particular to the statement of break-downs break-down alarm systems are used, which ith D R. of a sharp switching device, an alarm unit and/or alarm unit systems to the recognition of events, alarm giver for the local alarm as well as a central processing unit to consist, to which all elements of the system are attached. Furthermore modern break-down alarm systems have the ability to alarm a assistance-carrying out place over telecommunications ways. The alarm units of break-down alarm systems use changes physical dimension, like temperature, electrical amperage, resistance, sound, pressure etc. for the recognition of events and hand these over converted as signal over reporting lines to the center of the break-down alarm system. The allocation from events to dangers and thus for as wrongalarm-free an enterprise of break-down alarm systems as possible exclusively takes place via the expert installation of the alarm units.

from disadvantage it is with well-known break-down alarm systems that these are susceptible to false alarms in external areas in particular and are not frequently able, to differentiate alarms from wrong alarms to. The result are loss to reliability, blunting the task forces as well as resulting costs, which are not covered by the regular enterprise of the alarm combination and must by the user be carried. For the solution of the problem of the wrong alarming optionally to break-down alarm systems picture transmission mechanisms are inserted, which transfer electronically taken up pictures or screen sequences over telecommunications ways to the assistance-carrying out place, in order to have with alarm a picture of the situation. Furthermore admits are permanent video guards of objects by means of technical devices, which can be noted electronically taken up pictures or screen sequences permanently into a Ringspeicher and be selected if necessary for reconstruction and proof purposes.

A message from events is not possible with these devices and must take place if necessary via other devices.

admits is also permanent video guards of objects by means of special video awake centers, whereby electronically taken up pictures or screen sequences over distance to this awake centers, which are permanently occupied with special instructed awake persons, who provide multilevel, also in the night hours, their service with the well-known physiological problems, transferred, there it are noted, and/or permanently observed. The message from events is done with these awake centers via the awake persons, if determined, because the expected events are coincidence events with relatively small probability, which require highest attention over long times, which can lead to fatigue with the personnel from the guard staff, so that despite the high personnel expenditure an endangerment of the object is not impossible sometimes. The services of such awake centers are not accessible to a broad public from cost reasons. Admit are also video guards of objects without permanent video observation, whereby electronically taken up pictures or screen sequences over, usually only short one, distance transferred are noted and in recording devices. The recordings permit if necessary a review for a certain time interval. For the message from events additional signalling equipment is necessary.

Accordingly the invention consists the problem of the fact that by a permanent observation securing objects, connected with the punctual recognition and confirmation of danger situations as well as a fast influence (e.g. intervention) in the danger case, which represents optimum protection.

the problem of of the permanent observation and influence is solved by means of a device, which consists of several building groups, which distributes, regarding place, acquisition of information, data processing and, effect by means of a telecommunications network (TKN) are connected for human work. In particular the device consists of one or several central processing units (CPU), one or more autonomously working object units (OE), one or more awake units (incoming goods), one or several intervention units (IE) as well as one or more customer units (KE).

furthermore the solution of the problem of the permanent observation and influence is reached by multi-level cooperating of the building groups object unit, central processing unit, awake unit, intervention unit and customer unit, whereby in particular the object unit the acquisition of information by permanent admission and processing of data (electronically taken up screen sequences and measured values etc..) realized,
realized,
the central processing unit the data processing by storage, forwarding, information preparation and controlling of the information flows realized,
the intervention unit the influence of the objects effectuation, thus that by task forces by means of the won and finished information are led,

the customer unit the influence of the objects it causes the awake unit the data processing by evaluation of the data by means of human intelligence (Telearbeiter) by instruction inputs for remote effect mechanisms of the object unit.

the multi-level of cooperating can be described first of all as observation and evaluation, secondly as message and thirdly as influence. The first stage is realized by the object units and the awake units in cooperating with the central processing unit: The object unit is arranged at the object which can be observed, takes up by means of sensors permanently screen sequences and measured values and processes the data (evaluation). If the evaluation results in that an additional observation is necessary, then the taken up data become over the central processing unit to one or more awake units transfer and there by means of human intelligence (Telearbeiter) evaluated and/or work on. The central processing unit works in this case as information editor, order distributor and information buffer.

the second stage attaches to the evaluation of the data by the awake unit and concerns e.g. the additional compression and evaluation of the data feedback by the central processing unit, which can entail the alerting (message) of the intervention units.

the third stage takes place via the intervention unit in cooperating with the central processing unit. After the alerting of the intervention unit employment-referred object data as well as management informations are conveyed to the intervention unit. Additionally information of the customer can be made by the customer unit. In the case of the influence of the object unit by the customer unit the input of control instructions for servo units of the object unit takes place directly via central processing unit or to the object unit.

the building groups of the device are described in the following:
the central processing unit works as central checking device, when central data memory and collecting point for all information and data, which are won in the device, needed finished as well as. It works as co-ordination and marketing board for data, information and tools and is link between the building groups: Object unit, intervention unit, awake unit and customer unit. The central processing unit receives data from the object units, which send these as consequence of the evaluation. The central processing unit generates orders for the awake units from the data of the object unit as well as the comparison and the auxiliary information stored to the object and dispatches the orders for treatment (evaluation) to the awake units attached at this time. Gotten back results of working are evaluated by the central processing unit and consolidated and result in the alerting of the intervention units. In the case of emergency the central processing unit transfers intervention information to (mobile) the intervention unit. The task forces become in such a way by information (e.g. overviews, layout plans, intervention plans, current data of the object unit and

status informations etc..) led.

the central processing unit implements statistic computations and accounts, administers object data, results of working, awake persons, their qualifications, objects, customer, intervention plans etc..

the central processing unit is entrance portal, information and drilling platform for awake units, intervention units as well as customer units.

the central processing unit can be like the other building groups of the device spatially distributed and ordered for its enterprise over a set of mechanisms: in and output equipment for attached operator consoles, optionally also for attached local of networks. Operator consoles consist e.g. of alphanumeric input unit (keyboard), Alphanumerik and bildmonitor, showing unit (mouse), clay/tone output unit, printeringness.

the central processing unit has computing and evaluation mechanisms for accounts, profile computations, statistics etc..

storage facilities for data bases for data of the object units, i.e. screen sequences, measured value sequences. Actions which can be released, being, for programs for the evaluation, for control programs and tax data of the central processing unit, for objects, customers, for intervention partner, coworker, for dates of registration, for settlement dates, for instructions, Tutorials, for the allocation of the components, communication data etc..

examples of object data
screen sequences, comparative data, measured values, being, etc..

examples of intervention data
addresses, object specifications, layout plans, approach road ways, plans of application with operational variants, guidance instructions, assigned intervention partners and their intervention units, partner, communication ways.

examples of customer data
addresses, object data, partner, communication ways, products, prices, conditions, settlement dates, intervention partner, marketing data (acquisition, support, kundenart, examples of coworker data: Addresses, person profiles (qualification, account, co-operation, activities, reliability).

examples of intervention partner data
addresses, partner profiles (qualification, account, co-operation), marketing data

(acquisition, support, customer).

examples of settlement dates
prices, products, Statistiken(Kostenanalysen, frequentnesses, etc.).

furthermore the central processing unit has:
a communication device for communication with the other building groups of the device, which realize a protected data exchange by safety devices,
a steuerungseinheit for the flow control of the function mechanisms of the central processing unit,
a safety device for safe communication (e.g. coding, coding, Firewall etc..) as well as a power supply unit for the no-break power supply of the functional units.

the object unit is the building group, which realizes the data acquisition, event statement at the object which can be guarded permanently. It has a set of mechanisms:
mechanisms for the no-break enterprise of the building group,
input mechanisms for the wire-bound and/or wireless connection of e.g. sensors for electronically taken up screen sequences, sound signals, discrete status signals as well as similar measured values. The sensors for screen sequences (cameras) are directed toward parts of the object, area, process etc. which can be guarded and supply permanently screen sequences to the building group. The sensors for measured values are installed at the object parts, by which measured values are to be taken up, that can e.g. conventional alarm units be.

communication devices, in connection with protection facilities (e.g. modem) to safe communication to other building groups of the device, in particular for data communication to the central processing unit in the danger case. As required also a connection to maintenance purposes and other of datentransfers can be developed to the object unit.

storage facilities for the storage from screen sequences to proof purposes, consequences of measured values, for target being, for control and computational programs for the evaluation, for being, evaluations, complex evaluations, for actions of the object unit as well as for the identification number for the clear identification of the object unit.

output equipment for the expenditure of discrete as well as similar correcting variables for the effect on servo units e.g. for camera focusing, loudspeakers as well as for other actuators.

safety devices for self protection before sabotage, power failure.

the control unit serves the flow control within the object unit.

the power supply unit secures the no-break power supply of the function mechanisms.

control equipment for actions.

in order changes such as readjusting, a switching on and off of resting against the object, e.g. adjustment of the camera determined cause actions, which can be assigned to the decisions of the evaluations.

other actions can e.g. an opening, pushed, locking gates etc. to be. An important action process is the alerting of the central processing unit.

action processes know mechanisms of the central processing unit or of the central processing unit authorized to be started. Thus a remote control of the object unit is possible. Analysis mechanisms. To the evaluation of taken up data.

analysis programs of this mechanism for the evaluation of screen sequences and measuring data can be e.g.:
recognition of changes in screen windows,
recognition of movements,
recognition and distinction of objects, sample, structures,
change of position (place, direction, speed) of objects,
appearance and disappearing objects and their number in the screen window,
identification of objects and their movement in the screen window etc..

the analyses are applicable to one or more screen windows in the picture scene. Uninteresting ranges are excluded in such a way. The object unit can be configured in this way.

example of movement message and automatic adjustment

screen windows are examined on movements, i.e. changes of position by objects in the screen window. If the movements deviate from a limit value spectrum, e.g. because an additional object in the picture scene appears and therein moved or because objects are removed from the picture scene or because a storm can arrange the tree too strongly moved and damage, an alert is produced. On the other hand natural movement spectra of the objects in the screen window, e.g. the movement of a tree in the wind, swinging branches, the Duempeln of boats at the couch place, going through small animals are considered by the screen window etc.. The sensitivity of releasing an alarm is adjustable, e.g. the limit value spectrum trained in a learning phase of the object unit. The object unit is able, the spectrum at changes in the picture scene, which change normally very slowly and take place within certain borders adapt. adapt e.g. seasonal changes such as case of sheet, growth phases, lighting conditions

etc.. The mentioned adjusting borders for these adjustments prevent that e.g. the sensors of vegetation become covered and with it ineffective.

example of object and movement recognition, direction, speed

the process of the object recognition is realized either within the movement message or connected at the outlet side as separate process and this if necessary. It is tried to recognize and classify the object, in order to recognize as danger object. If objects may not achieve a certain place, then is necessary the regulation of direction and speed, in order to win an advance warning time. If the object continues the movement in the forbidden direction, this leads to the alarm.

for the evaluation several screen windows with the described evaluation methods can be included and activated for the alarm production. Thus uninteresting ranges can be excluded and be configured the object unit more simply and better.

example of the clay/tone data evaluation

the sound sensors take up noises of the environment. The evaluation considers sample comparisons to the recognition of noise samples of danger situations e.g. storm, fire, bang or e.g. explosion, disturbances at technical mechanisms, etc., which serve the danger in connection with other won measuring data to signaling.

evaluations for discrete or similar measured values can be e.g.:
evaluation of alarm unit signals,
being at technical building equipments, limit value excesses, etc..

can serve example of the evaluation of the similar to and discrete measured values

alarm unit events to signal a danger situation either immediately (fires) or analysis procedures of the analysis mechanism start (e.g. movement alarm unit starts the image analysis). At the entrances for similar measured value sequences e.g. air conditioning probes can be attached. The evaluations examine e.g. the adherence to certain tolerances.

limit value excesses can be assigned actions.

a complex evaluation results from the combination of several different evaluations from data to the improvement of the information content.

the evaluation of the pictures and the measured values have the purpose to recognize and signal dangerous events by the object independently as well as the communication expenditure to a minimum to reduce.

occurrences, which are due to fixed decision criteria of the evaluation mechanisms critical events, lead for the setting up of the data communication to the central processing unit. In this case e.g. parallel and sequentially to the autonomous enterprise of the object unit taken up graphic data can be transmitted to the central processing unit.

the awake unit is the work station of the Telearbeiters (awake person). Furthermore it can work as instruction input place for the remote influence of the object units.

the awake unit receives orders from the central processing unit for treatment/evaluation (data of the object units as well as necessary comparison and auxiliary information as well as necessary tools). The received data are in such a way arranged and structured that a complete and correct treatment is possible. For safety reasons an identification of the object, from which the data come, is not possible for the awake unit.

the result of the treatment evaluation is the decision of the awake unit, which after compression and evaluation leads by the central processing unit to the alerting and activation of the intervention unit.

the awake unit has to its function a set of mechanisms:
in and output equipment for the attached console (e.g. alphanumeric input unit (keyboard), Alphanumerik and bildmonitor, showing unit (mouse), clay/tone output unit, unit of pressure).
computing and evaluation mechanisms to the decision support and prompting storage facilities for data bases, for screen sequences, for order dates, for programs for the decision support for control programs and tax data of the awake unit, for instructions, tools, Tutorials etc. as well as for the identification number, for the clear identification
communication device with safety devices for safe communication with the central processing unit, over a control unit for the controlling of the expirations of the functional units of the awake unit. A power supply unit for the no-break power supply
mechanism for local of networks for the enterprise of the building group with distributed work stations.

the awake unit can be trained as mobiles system.

the intervention unit

this building group of the device is the work station of the intervention partner
and serves on the one hand the structured data acquisition and data input of the
intervention information with mechanism and installation of the object units at the
customer object as well as regular control of the installation, on the other hand
works the intervention unit than information and instrument of control in the case
of intervention, whereby the central processing unit supplies time near and
completely the intervention information to the intervention unit. Task of the
intervention unit is the representation of the information in graphic, alphanumeric,
acoustic way for the guidance of the task forces. Intervention units can be
stationary or mobile systems.

the intervention unit has the mechanisms:
in and output equipment for the attached console (e.g. alphanumeric input unit
(keyboard), Alphanumerik and bildmonitor, showing unit (mouse), clay/tone
output unit, evtl. Unit of pressure).
computing and evaluation mechanisms for information representation,
decision support and prompting
storage facilities for data bases, for screen sequences and intervention data, for
programs for the information representation, decision support, for control
programs and tax data of the intervention unit, for instructions, tools, Tutorials
etc. as well as for the identification number, for the clear identification of the
intervention unit
communication devices as well as safety devices for safe communication with
the central processing unit
control unit for the flow control of the function mechanisms of the intervention
unit
a power supply unit for the no-break power supply
mechanism for local of networks for the enterprise of this building group with
distributed work stations, optionally as mobilely distributed work stations.

the customer unit serves the object unit as information station as well as
instruction location for the remote influence. In the case of an alerting information
is sent on the intervention unit. In the simplest case the customer unit is designed
as mobiles telephone, whereby the information e.g. in linguistic form, in text or
can be conveyed to graphic form.

ideal way is trained the customer unit similar to the intervention unit as stationary
or mobile system. The entrance to the object unit to the purpose of the influence
the same is made via a special access authorization either directly or by the
central processing unit.

cooperating the building groups as well as applications by examples is described

in the following:

1. Example

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adding an object unit to the device

for an object which can be secured is compiled a safeguard concept by the intervention partner, e.g. local awake and safety enterprise, the installation of the object unit is planned and specified together with the customer kind and range of the intervention measures in the case of emergency. Furthermore comparative data are specified for the evaluation (for awake units), the analysis algorithms (for object unit, central processing unit). The information of these planning and definitions is prepared for storage in the central processing unit (e.g. error control) and structured. The registration of the object unit with the central processing unit, the data communication of the seized information to the central processing unit as well as the adjustment of the object unit take place afterwards with the help of the building group "intervention unit". After these work an additional building group "object unit" of the device is added and works autonomously on the object which can be secured.

2. Example

adding an awake unit, registration

the building group "awake unit" as implement of the awake person is for example a personal computer with aforementioned equipment as well as mechanisms, which make the enterprise possible of the computer as awake unit. These mechanisms are made available by the central processing unit, as soon as a successful registration took place. The mechanisms steer among other things order receipt, treatment and return, information exchange.

happens the registration of the awake person (Telearbeiter), as a person, who is interested in the cooperation, applies with the central processing unit for the cooperation as an awake person (e.g. on-line). By means of a logon procedure necessary data of the future Telearbeiters are seized and stored. After confirmation the Telearbeiter receives an identification, which can take up the cooperation for armament necessary mechanisms for the enterprise of the awake unit and.

3. Example

function of the awake unit

task of the awake unit is the treatment of orders of the central processing unit within a given time.

to up-to-date announced awake units orders will transfer for treatment. As well as the orders contain the data which can be worked on as well as necessary auxiliary data, aids, of tools, information etc., those for the complete treatment of the orders are necessary one allowed time. After the treatment the orders are returned to the central processing unit and evaluated there and processed (e.g. consolidates to generate around the alerting).

the evaluation of the up-to-date worked on orders enters evaluation of the awake units, it considers knowledge conditions, reliability, speed, quantity, quality etc.. (profile of the awake unit) and affects the remuneration among other things. Inexperienced awake units are linked together with one or more additional awake units, in order to improve the quality of the treatment (evaluation).

to the improvement in certain, regular intervals teaching materials, Tutorien, lessons etc. are given to the qualification of the awake persons (Telearbeiter) of the awake units to the awake units and worked on like orders and evaluated by the central processing unit.

4. Example

security of the data

information and data are won and processed by the device in the different building groups. By separation and distribution of the data orders contain on the one hand all information for the quality-assuring treatment, do not make however on the other hand for the awake units not the identification possible of the object, from which the data come. Furthermore a maximum of security of the data is possible by the separation and distribution of the information, by the redundant structure of the device as well as by redundancies with the information passing on. Furthermore the entrance to building groups of the device is possible only by

identification numbers.

5. Example

profit play

of the central processing unit generated orders (data together with information and aid etc., which can be worked on.) to arbitrary announced fellow players are given, who work on these in the competition, correctly and in as short a time as possible (result) to return to have. A goal of the play could be it of recompencing the shortest reaction with points of bonus. Other goals are conceivable. The evaluation is done after arrival of a certain number of results of the fellow players via comparison (correlation). The quality of the working on increases a scoring and in a good list. The best ones are praemiert.

possible variants: Spielszenen (orders) with well-known result. Spielszenen (orders) with those material picture sequences, artificially produced picture sequences or old material picture sequences to be used.

because not between spielszene and material scene, can the play variant can be differentiated to contribute which know quality of the found decisions to improve as well as better judged participants (and/or coworkers) and are evaluated. In this sense these play variants can be used for training, for the investigation of behaviors of the participants, for the increase of the attention etc..

the profit play offers the possibility, play-rubbed as factor of production and safety factor to use.

6. Example

scenario, information flow

the object unit is installed in the external area of a single family house, e.g. in a housing estate. The cameras are among other things directed toward the front of the yard side. The bildauswertung recognizes an object, which moves toward the building. The analysis mechanism of the object unit was stopped in such a way with the installation that this direction of motion is considered as alarm criterion, why the object unit of the central processing unit signals this event immediately

and transmits the current data (screen sequences).

the central processing unit generated from these object data an order for the awake units, selects up-to-date announced awake units, examines their evaluations, supplemental if necessary further awake units and mails to these awake units the order and starts e.g. the forwarding of the current screen sequences from the object unit.

each awake unit for itself, at different places actively, works on the order, evaluates the data on the basis the information and sends the result back to the central processing unit. Task of the treatment is it to determine whether the event . determined by the object unit makes an event the employment of the intervention unit necessary or not, then here broken off.

all results, which arrive within the standard time of the awake units with the central processing unit, are compared and evaluated. If the evaluation (compression, correlation) of the results of the awake units requires the intervention at the object, the intervention unit is alarmed.

the connection to the intervention unit is developed, transferred intervention data as well as begun the forwarding of the current screen sequences from the object unit. Already during the advance to the object the task forces can inform with the help of the intervention unit, additional data to the object claim etc.. At each time it is possible to call to the employment relevant data up. It is of advantage that plans of application, layout plans, information can be available very fast and be adapted to the necessary conditions. Parallel to the alerting of the intervention unit the customer (owner of the object) knows, according to agreement, by means of which customer unit are informed, e.g. by delivery of a text or Spachinformation on mobiles a hand attachment.

7. Example

guard variant hospital service

the building group object unit can be used in a possible modification e.g. in the domestic old and nursing for the sick. The object units are used with assistance-needy persons. The awake unit is arranged with the hospital service, (mobile) the intervention unit with the field service of the hospital service. Management informations are available thus locally. Data exchange between the building groups takes place in the way already described.

8. Example

guard variants

the device can be used into possible modifications e.g. in the agriculture for the observation of pastures and ouples as well as their entrances, stables, etc.,
in the tourism industry into recreational parks, zoo, etc.,
in the traffic on park surfaces, stations etc.,
in the trade into shopping centres, open spaces, stock piles etc. into handicraft and industry camp -, production departments, energy-technical plants etc.,
in environmental protection on dumps, protected areas, water-technical plants, water supply etc.

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9. Example

order variants

by variation of the mechanisms for handling of order can come the building group "awake unit" for the treatment from orders to application, which are not connected with guard of objects etc., e.g. could the treatment of texts on the basis of clay/tone documents or from texts into other languages (translations) or providing and dispatching letters, fax letters, enamels on the basis of raw texts and addresses, information services on the basis of telephone inquiries, calculation services on the basis of price lists, work instructions, development up to complex orders, those far Untervergaben makes necessary etc., also service achievements and activities e.g. messenger services, Hospital services, reading off services for power supplier etc. are possible.

10. Example

central processing unit as archives

in the object unit won and in the case of emergency the screen sequences sent to the central processing unit are archived to purposes the preservation of

evidence and for the prosecution.

on the central processing unit personal data, attitudes and configurations for the Telearbeiter working on building groups of the device are stored. That is of advantage, if Telearbeiter work on changing building groups or from other places, however their own working environment to find wants.

11. Example

object unit as remote effect unit

means of the instruction input mechanisms is possible it for the building groups awake unit, intervention unit and customer unit to access object units and to remote control the servo units of the object unit. E.g. gates, Rollaeden can be opened or closed, technical mechanisms at the object or at the object unit be affected and placed behind e.g. for cameras etc..

12. Example

virtual work space/awake area

the device with their building groups is a teleworking environment, which registered persons use, in order to work as an awake person or work on other orders. The Telearbeiter works on orders together, by the communications network connected, however spatially and temporally distributed in a virtual work space "virtual awake area".

to each awake unit as well as to each Tele coworker exists a profile, which informs reliability, experience, account factor etc. about qualification. The Telearbeiter becomes after its achievements (reliability, quality, etc..) judged. The remuneration orients itself after this evaluation as well as in combination with other criteria.

by world-wide cross-linking and distribution of the coworkers and orders it is e.g. not necessary to carry night work out to use no more time for the completion of an order as necessary to create various cooperation possibilities as well as to use various abilities for the realization from orders to etc.. Because of the separation and distribution of the information as well as by installation of

redundancies in the information passing on a maximum of security of the data is possible.

Claims OF DE10029784

1. Device for the permanent observation, guard and influence of buildings, areas, objects, procedures, processes and such as well as their parts, by the fact characterized that the device from following building groups how: , one or more central processing units (CPU), one or more awake units (incoming goods) one or more intervention units (IE), one or more customer units (KE), information those exists one or more object units (OE) by means of a telecommunications network (TKN) place -, and work-distributes is effect connected and cooperates as well as that according to invention the human work necessary for reaching the purpose is carried out locally, informatively and personnel distributed

2. Device after 1, by it characterized that the central processing unit (CPU) is a building group, those from the components processor (CCU), non removable disk drive assembly (HDD), main memory (RAM), read-only memory (ROM), wire-bound or wireless communication device by safety device for secured communication (modem) and power supply exists and those alternatively the components floppy disk drive (FDD), graphic display, keyboard, showing device, clay/tone output equipment (sound) and a mechanism for local network contained can and by means of a clear characteristic, for example a unit number or a pin number, identifiable is

3. Device after 2, by the fact characterized that the central processing unit (CPU) is equipped furthermore with mechanisms for the controlling of the information flows between the building groups, mechanisms for the storage of data of other building groups of the device, e.g. master data of the object units, awake units, customer units, intervention units, comparison and the auxiliary information etc., mechanisms for evaluation and comparison of information, e.g. the awake units, object units, etc., mechanisms for storage and archiving of data of the object units, (OE) e.g. for purposes of practice and proof, mechanisms for the supply of aids, tools, teaching materials etc., mechanisms to the generation and dispatching of orders, e.g. by combination of object data with comparison and auxiliary information and allowed time, alarm data, management informations etc., mechanisms for the delivery and receipt orders e.g. worked on by data and information at and from the building groups, e.g. dispatching and receiving back of orders, mechanisms for account, mechanisms to the input of control information for the building groups of the device, e.g. for the influence of conditions at the building groups of the device, mechanisms for the generation of coincidental combinations of the quantity of the stored object data for orders, e.g. orders for exercise, game situations with A priori well-known result

4. Device after 1, by the fact characterized that the object unit (OE) is a building group, which consists non removable disk drive assembly (HDD) of the

components processor (CCU), main memory (RAM), read-only memory (ROM), wire-bound and/or wireless communication device with safety device for secured communication (modem), and power supply and those alternatively the components floppy disk drive (FDD), graphic display, keyboard and showing device, a mechanism for local network, wire-bound and/or wirelessly, can contain and by means of a clear characteristic, for example of a unit number or pin number is identifiable, as well as works autonomously.

5th device after 4, by the fact characterized that the object unit (OE) is equipped furthermore with mechanisms for the controlling of the information flows between the building groups, mechanisms for the controlling of the autonomous and permanent enterprise of the building group, input mechanisms, wire-bound and/or wirelessly, for electronic cameras, sensors and alarm unit, output equipment, wire-bound and/or wirelessly, for servo units, mechanisms for the permanent evaluation of the taken up data and recognition and quantification of events, mechanisms to the receipt of data of the central processing unit, mechanisms for the delivery of data to the central processing unit, mechanisms for adjustment.

6th device after 1, by the fact characterized that the awake unit (incoming goods) is a building group, which consists non removable disk drive assembly (HDD) of the components processor (CCU), main memory (RAM), read-only memory (ROM), wire-bound or wireless communication device with safety device for secured communication (modem), graphic display, keyboard, showing device, clay/tone output equipment (sound) and power supply and those alternatively the components floppy disk drive (FDD) and a mechanism for local network can contain and by means of a clear characteristic, for example of a unit number or pin number is identifiable, as well as is suitable optionally for the mobile employment.

7th device after 6, by the fact characterized that the awake unit (incoming goods) is equipped furthermore with mechanisms for the controlling of the information flows between the building groups, mechanisms for the controlling of the building group as teleworkstation, for one or more Telearbeiter, mechanisms to the receipt of information and data of the central processing unit (e.g. orders, search, selection), mechanisms for the delivery of data to the central processing unit, e.g. worked on orders, mechanisms for representation and treatment of information and data of the central processing unit, e.g. orders, mechanisms to the instruction input e.g. for causing changes in status of the object unit.

8th device after 1, by the fact characterized that the intervention unit (IE) is a building group, which of the components processor (CCU), non removable disk drive assembly (HDD), main memory (RAM), read-only memory (ROM), wire-bound or wireless communication device with safety device for secured communication (modem), graphic display, keyboard, showing device, clay/tone output equipment (sound) and power supply consists and those alternatively the

components floppy disk drive (FDD), and a mechanism for local network contained knows and by means of a clear characteristic, for example a unit number or a pin number, is identifiable as well as optionally for the mobile employment suitable is.

9th device after 8, by the fact characterized that the intervention unit (IE) is equipped furthermore with mechanisms for the controlling of the information flows between the building groups, mechanisms for the controlling of the building group as teleworkstation, for one or more Telearbeiter, mechanisms to the receipt of information and data of the central processing unit (e.g. orders, search, selection), mechanisms for the delivery of data to the central processing unit, mechanisms for representation and treatment of information and data of the central processing unit, e.g. orders, mechanisms for mechanism and adjustment of object units. 10. Device after 1, by the fact characterized that the customer unit (KE) is a building group, which consists main memory (RAM) of the components processor (CCU), read-only memory (ROM), wire-bound or wireless communication device with safety device for secured communication (modem), graphic display, keyboard, showing device, clay/tone output equipment (sound) and power supply and those alternatively the components floppy disk drive (FDD) can contain, non removable disk drive assembly (HDD), and a mechanism for local network and by means of a clear characteristic, for example of a unit number or pin number is identifiable, as well as is suitable optionally for the mobile employment.

11. Device after 10, by the fact characterized that the customer unit (KE) is equipped furthermore with mechanisms for the controlling of the information flows between the building groups, mechanisms for the controlling of the building group as teleworkstation, for one or more Telearbeiter, mechanisms to the receipt of information and data of the central processing unit (search, selection), mechanisms for the delivery of data to the central processing unit, mechanisms for the representation of information and data of the central processing unit, mechanisms to the instruction input e.g. for causing changes in status of the object unit.